

Use Attainability Analysis

for

WBID 0781 Hurricane Creek

Submitted by
TetraTech Inc.

To

Missouri Department of Natural Resources
Water Protection Program

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet A - Water Body Identification

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WATER PROTECTION PROGRAM

Water Body Name: (from USGS 7.5' quad)	Hurricane Creek		
8-digit HUC:	10300102		
Missouri WBID #:	0781		
County:	Howard		
Upstream Legal Description:			
Downstream Legal Description:			
Upstream Coordinates: (UGS 84, ddd.ddddd)	39.20498; 92.78570		
Downstream Coordinates: (UGS 84, ddd.ddddd)	* N/A GPS could not obtain satellites, site ID - 237 39.20623; 92.84042		
Discharger Facility Name(s):	GLASGOW WWTF		
Discharger Permit Number(s):			
Number of Sites Evaluated:	6		
Name of Surveyor and Telephone Number:	DB, CG 410.356.8993		
Organization:	Tetra Tech, INC. Baltimore, Md		
Position:	Scientists		

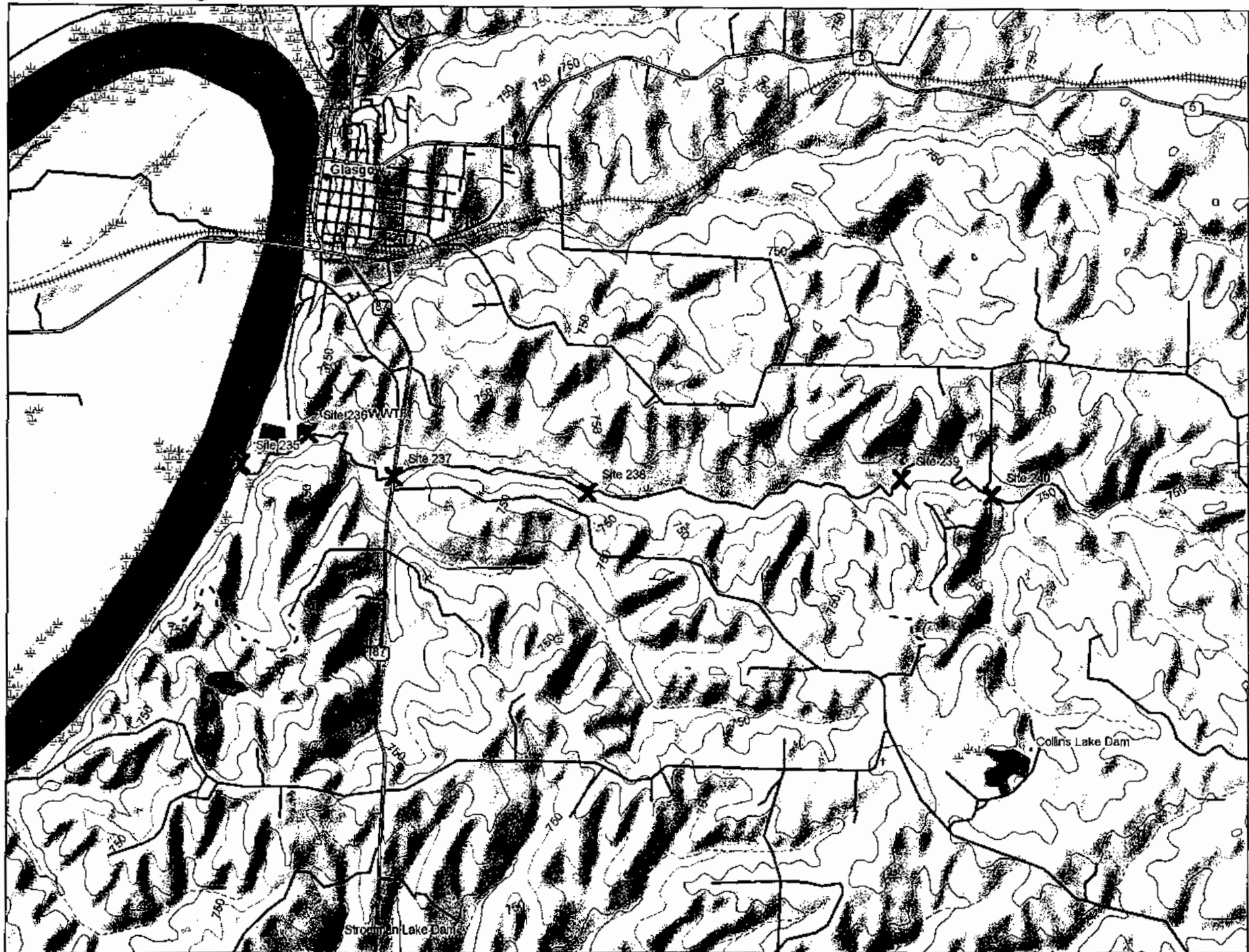
I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: _____

Date: _____

7/3/05

Hurricane Cr.



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Scale: 1 : 40,625 Map Rotation: 0° Magnetic Declination: 2.2°E

3,000 ft

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 0781 (site ID-235)	Site Location Description: ~150m downstream of site ID 236.
Site GPS Coordinates: *	
Date & Time: 03 July 2005; 3:58pm	Facility Name: Glasgow WWTF
Personnel: DB, CG	Permit Number:
Current Weather Conditions: sunny, warm	Weather Conditions for Past 7 days: hot, humid, dry, rainy
Photo Ids: Upstream: 2088	Downstream: 2087 Other: 2086

*Unable to get GPS, could not obtain satellites memory card A

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*: 2086

<input type="checkbox"/> Roads	<input checked="" type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>7m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.6m</u>	Max. Depth (ft): <u>0.75m</u>
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>non-measurable</u>		

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>6m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.4m</u>	Max. Depth (ft): <u>0.6m</u>
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>non-measurable</u>		

Substrate*: (These values should add up to 100%.)

% Cobble	% Gravel	<u>10</u> % Sand	<u>70</u> % Silt	<u>20</u> % Mud/Clay	% Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>N/A</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>brownish</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input checked="" type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 7/13/05
 Organization: Tetra Tech, INC Position: Scientist

QC Check & CG

0781-235-US



0781-235-DS



0781-235-FOOTPRINTS



Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 0781 (site ID-236)	Site Location Description: 150m downstream of site ID 237.
Site GPS Coordinates: *	
Date & Time: 03 July 2005; 3:42 pm	Facility Name: Glasgow WWTF
Personnel: DB, CG	Permit Number:
Current Weather Conditions: Sunny, warm	Weather Conditions for Past 7 days: Hot, humid, dry, rainy
Photo Ids: Upstream: 2085	Downstream: 2084 Other: 2083

*Unable to get GPS, could not obtain satellites. memory card A

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*: 2083

<input type="checkbox"/> Roads	<input checked="" type="checkbox"/> Foot paths (prints)	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>4m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.45m</u>	Max. Depth (ft): <u>0.5m</u>
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft ³ /sec): <u>25 seconds/meter</u>	

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>3m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.3m</u>	Max. Depth (ft): <u>0.35m</u>
<input type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft ³ /sec): <u>22 seconds/meter</u>	

Substrate*: (These values should add up to 100%.)

% Cobble	% Gravel	% Sand	<u>80</u> % Silt	<u>20</u> % Mud/Clay	% Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>N/A</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>brownish</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 7/3/05

Organization: Tetra Tech, INC Position: Scientist

QC Check: CG

0781-236-US



0781-236-DS



0781-236-FOOTPRINTS



Stream Morphology:

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>6m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.55m</u>	Max. Depth (ft): <u>0.6m</u>
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>not measurable</u>		

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>6m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.3m</u>	Max. Depth (ft): <u>0.45m</u>
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>not measurable</u>		

Substrate*: (These values should add up to 100%.)

% Cobble	% Gravel	<u>40</u> % Sand	<u>50</u> % Silt	% Mud/Clay	<u>10</u> % Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>N/A</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>brownish-greenish</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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Signed: [Signature] Date: 7/3/05
 Organization: Tetra Tech, INC Position: scientist

QC check: CG

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 0781 (Site ID-237)	Site Location Description: Hwy 87 at bridge crossing
Site GPS Coordinates: 39.20623; 92.84042	
Date & Time: 03 July 2005; 3:31 pm	Facility Name: Glasgow WWTF
Personnel: DB, CG	Permit Number:
Current Weather Conditions: Sunny, warm	Weather Conditions for Past 7 days: Hot, humid, dry, rainy.
Photo Ids: Upstream: 2081	Downstream: 2082
Other:	

Uses Observed*:

memory card A

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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0781-237-US



0781-237-DS



Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 0781 (site ID -238)	Site Location Description: ~125m upstream of site ID 239.
Site GPS Coordinates: 39.20731; 92.78808	
Date & Time: 03 July 2005; 4:50pm	Facility Name: Glasgow WWTF
Personnel: DB, CG	Permit Number:
Current Weather Conditions: Sunny, warm	Weather Conditions for Past 7 days: Hot, humid, dry, rainy
Photo Ids: Upstream: 2096	Downstream: 2095
Other: memory card A	

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				
N/A				

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Stream Morphology:

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>9m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.6m</u>	Max. Depth (ft): <u>0.7m</u>
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>non-</u>		

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>9m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.6m</u>	Max. Depth (ft): <u>1.0m</u>
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>non</u>		

Substrate*: (These values should add up to 100%.)

<u>10</u> % Cobble	<u>10</u> % Gravel	<u>40</u> % Sand	<u>40</u> % Silt	% Mud/Clay	% Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>N/A</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other: <u>Brownish</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 7/3/05

Organization: Tetra Tech, INC Position: Scientist

QC check: CG

0781-238-US



0781-238-DS



Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 0781 (site ID-239)	Site Location Description: 175m upstream of site ID 240.
Site GPS Coordinates: 39.20604; 92.78703	
Date & Time: 03 July 2005; 4:40pm	Facility Name: Glasgow WWTF
Personnel: DB, CG	Permit Number:
Current Weather Conditions: Sunny, warm	Weather Conditions for Past 7 days: Hot, humid, dry, rainy
Photo Ids: Upstream: 2092	Downstream: 2093
Other: 2094	

Uses Observed*:

memory card A

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: 2094 mowed lawn	

Evidence of Human Use*:

<input type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>6m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.5m</u>	Max. Depth (ft): <u>0.6m</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>non-measurable</u>	

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>13m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>1m</u>	Max. Depth (ft): <u>1.3m</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>non-measurable</u>	

Substrate*: (These values should add up to 100%.)

% Cobble	% Gravel	% Sand	<u>60</u> % Silt	<u>40</u> % Mud/Clay	% Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>N/A</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>BROWN</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 7/31/05

Organization: Tetra Tech, INC Position: Scientist

QC Check 3 CG

0781-239-US



0781-239-DS



0781-239-MOWED-LAWN



- 175m

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Hurricane

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239

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 0781 (site ID-240)	Site Location Description: CR 233 at bridge crossing
Site GPS Coordinates: 39.20498, 92.78570	
Date & Time: 03 July 2005, 4:28pm	Facility Name: Glasgow WWTF
Personnel: DB, CG	Permit Number:
Current Weather Conditions: Sunny, warm	Weather Conditions for Past 7 days: Hot, humid, dry, rainy
Photo Ids: Upstream: 2090	Downstream: 2091
Other: 2089	

Uses Observed*:

memory card A

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

N/A

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads 2089	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>14m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.5m</u>	Max. Depth (ft): <u>0.7m</u>
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>non-measurable</u>		

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>15m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.5m</u>	Max. Depth (ft): <u>1.2m</u>
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>non-measurable</u>		

Substrate*: (These values should add up to 100%.)

<u>25</u> % Cobble	<u>25</u> % Gravel	<u>25</u> % Sand	<u>25</u> % Silt	% Mud/Clay	% Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>Small amounts of algae.</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: <u>fishy smell</u>
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>brownish-green</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input checked="" type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 7/13/05

Organization: Tetra Tech, INC Position: Scientist

QC check: CG

0781-240-US



Hurricane
CK
240
US

0781-240-DS



Hurricane
CK
240
DS

0781-240-ROAD

